

REMARKS

Claims 1-4, 6-9, 11, 13 and 15-21 are now pending in this application. Claims 1, 2, 8, 15, and 18-20 are independent. Claims 1, 2, 8, and 15 have been amended solely for clarity, claims 18-21 have been added, and claim 4 has been canceled by this Amendment.

No new matter is involved with any claim amendment or new claim, as support may be found throughout the originally-file disclosure, including FIGS. 3 and 4 and related description in the Specification.

I. Written Description Rejection – 35 USC § 112, ¶1

Withdrawal of the rejection of claim 8 under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement is requested. Without conceding to the propriety of the Examiner's assertion and solely in an effort to expedite prosecution without prejudice or disclaimer, claim 8 has been amended to remove the recitation of "a computer readable storage medium...", and to now recite a processor and a memory operatively connected to the processor.

Consideration and allowance of amended claim 8 are respectfully requested.

II. Unpatentability Rejection over Forslow in View of Amin

Withdrawal of the rejection of claims 1-4, 6-9, 11, 13, and 15-17 under 35 U.S.C. §103(a) as allegedly being unpatentable over Forslow (US 2003/0039237) in view of Amin (US 2002/0058506) is requested. The Examiner has failed to make a *prima facie* case of unpatentability, particularly with respect to the clarifying amendments made to the claims by the present amendment.

A. Legal Requirements for Unpatentability

At the outset, Applicant notes that, to establish a *prima facie* case of obviousness, three basic criteria offer useful insights. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the

claim limitations.¹ Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.² The Supreme Court recently held that it is necessary, *inter alia*, for a court to look to interrelated teachings of multiple patents in order to determine whether there was an apparent reason to combine the known elements in the claimed. In this regard, the Court held "[t]o facilitate review, this analysis should be made explicit."³ "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."⁴

B. Deficiencies of the Applied Art with Respect to the Claims

1. Independent Claim 1

The applied art, Forslow and Amin, either alone or in combination, does not disclose, teach, or suggest a method of registering a multimode mobile station in a telecommunications system, wherein the telecommunications system comprises a home location register for maintaining mobile subscriber data and supports a first network and a second network of a different type, and wherein the method includes, *inter alia*, "at the home location register, maintaining the mobile subscriber data and receiving, from another network element, a message for requesting the mobile subscriber data, the mobile subscriber data comprising address information for accessing the mobile subscriber via the first and the second network of the different type; ***the home location register maintaining a subscriber-specific access parameter which indicates, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network of the different type***; wherein the first network and second network are provided by a common operator; and in response to said message for requesting the mobile subscriber data, the home location register sends the mobile subscriber data and also said subscriber-specific access parameter; wherein the network element that requested the mobile subscriber data is operable to use said subscriber-specific access parameter for restricting the location updating of the mobile station only to the first network or to

¹ See MPEP §2143.

² *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and *See* MPEP §2143.

³ *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. ____ (2007) (see p. 14).

⁴ *See Id.*, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

the second network of the different type," as recited in independent claim 1, as amended (*emphasis* added).

2. Independent Claim 2

The applied art, Forslow and Amin, either alone or in combination, does not disclose, teach, or suggest a method of registering a multimode mobile station in a telecommunications system, wherein the telecommunications system comprises a home location register for maintaining mobile subscriber data and supports a first network and a second network of a different type, wherein the first network and second network are provided by a common operator, *the mobile subscriber data comprising* address information for accessing the mobile subscriber via the first and the second network and *a subscriber-specific access parameter indicating, independently of the address information*, whether the mobile subscriber has access rights to the first network and/or the second network of the different type, wherein the method includes, inter alia, "sending from another network element to the home location register a message for requesting the mobile subscriber data, *the mobile subscriber data comprising said subscriber-specific access parameter indicating, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network of the different type; the network element that requested the mobile subscriber data using said subscriber-specific access parameter to restrict a location update of the mobile station only to the first and/or the second network of the different type*," as recited in independent claim 2, as amended (*emphasis* added).

3. Independent Claim 8

The applied art, Forslow and Amin, either alone or in combination, does not disclose, teach, or suggest a home location register configured to operate in a telecommunications system that supports multimode mobile stations and which comprises a first network and a second network of a different type, the first and second networks being provided by a common operator, wherein the home location register includes, *inter alia*, "a processor; and a memory operatively connected to the processor and configured to store mobile subscriber data for registering a multimode mobile station, *the mobile subscriber data comprising* address information for accessing the mobile station via the first and the second network; and *a subscriber-specific*

access parameter which indicates, independently of the address information, whether a mobile subscriber to whom the mobile station has been registered has access rights to the first network and/or the second network of the different type; wherein the processor is configured to receive, from another network element, a location update message for the mobile station and to send the mobile subscriber data and said subscriber-specific access parameter as a response to said location update message," as recited in independent claim 8, as amended (*emphasis added*).

4. Independent Claim 15

The applied art, Forslow and Amin, either alone or in combination, does not disclose, teach, or suggest a network element configured to operate in a telecommunications system which supports a first network and a second network of a different type, and multimode mobile stations, wherein the telecommunications system comprises a home location register for maintaining mobile subscriber data for registering a multimode mobile station in the telecommunications system, *the mobile subscriber data comprising* address information for accessing the mobile subscriber via the first and the second network and *a subscriber-specific access parameter indicating, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network of the different type*, wherein the network element includes, *inter alia*, "a processor configured to: send, to the home location register, a message for location updating of the mobile station; receive the mobile subscriber data and said subscriber-specific access parameter as a response to said message; use said subscriber-specific access parameter to restrict location updating of the mobile station only to the first and/or the second network; wherein the first network and second network are provided by a common operator," as recited in independent claim 15, as amended (*emphasis added*).

C. Discussion of the Cited Art with Respect to Applicants' Disclosure

1. Forslow

According to its Abstract, Forslow is purportedly directed to common access between a mobile communications network and an external network with selectable packet-switched and circuit-switched services in which applications running on a mobile station or an external network entity such as an Internet service provider may specify on an individual application flow basis a requested quality of service. From that requested quality of service, an optimal type of

bearer to transfer the application flow through the mobile communications network is determined. For example, a circuit-switched bearer may be allocated if the request is for a real-time service, and a packet-switched bearer may be allocated if the request is for a non-real time type of service. Various other decision making criteria may be employed. A mobile station and a mobile network gateway node each include a mapper for mapping an individual application flow to one of a circuit-switched network and a packet-switched network bearer depending on the quality of service requested for the individual application flow. The network layer quality of service parameters corresponding to an individual application flow are mapped to circuit-switched bearer parameters if the application flow is mapped to the circuit-switched network and to packet-switched bearer parameters if the application flow is mapped to the packet-switched network. The gateway node includes a common access server which permits a mobile station initially establishing a communications session with an external network entity to perform only a single, common access procedure for subsequent communications using one of the circuit-switched and packet-switched networks. After that common access procedure is completed, subsequent application flows between the mobile station and the external network entity are established using abbreviated procedures without having to access the external network entity.

Forslow relates to determining a type of bearer to be allocated to application flows based on requested quality of service. For example, a circuit-switched bearer is allocated if an application flow requests low delay or small jitter per packet, and a packet-switched bearer is allocated if an application flow requests fast channel access or bursty data transfer capability [See Forslow, at paragraph 25, for example].

By contrast, Applicant's claimed invention relates to a method of registering a multimode mobile station in a telecommunications system that supports a first network and a second network of different types (for example, circuit-switched and packet-switched networks), wherein the telecommunication system comprises a home location register that maintains in addition to mobile subscriber data (that comprises address information for accessing a mobile subscriber via the two networks), a subscriber-specific access parameter that indicates, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network.

One advantage of the use of the claimed subscriber-specific access parameter is the decrease of the signaling load in the system. For example, if the subscriber-specific access parameter indicates that the mobile subscriber has access rights to only a packet-switched network, unnecessary signaling to the circuit-switched network elements is avoided. [See, for example, specification-as-filed, at pgs. 6-8].

The Examiner relies on paragraphs [0011], [0050], [0075], and [0099] of Forslow for this feature. Paragraph [0011] of Forslow simply describes conventional HLR functionality, where the HLR stores permanent subscriber data such as mobile station ISDN number, an international mobile subscriber identity (IMSI), a list of services that a mobile subscriber is authorized to use, etc. At best, Forslow's HLR can be construed to maintain Applicant's claimed mobile subscriber data which comprises address information. However, there is no mention of Forslow's HLR maintaining, independently of the address information, the claimed subscriber-specific access parameters that indicates whether the mobile subscriber has access rights to the first network and/or the second network.

Paragraph [0050] of Forslow discloses that the HLR stores a PDP context for each mobile subscriber in corresponding subscription records, wherein the PDP subscription record includes subscribed quality of service profiles/parameters, subscribed-to external networks, a MSid such as IMSI, etc. Applicant submits that there is absolutely no disclosure in Forslow of any of the parameters included in the PDP subscription record indicating, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network.

Furthermore, paragraphs [0030] – [0032] of Forslow appear to describe a common access procedure for authenticating the identity the mobile station with an external network entity (for example, the Internet). These citations also fail to disclose the claimed subscriber-specific access parameter which is maintained in the home location register and indicates, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network.

Moreover, the Examiner relies on paragraphs [0050], [0075], and [0099] of Forslow to disclose the feature of: "in response to said message for requesting the mobile subscriber data, the

home location register sending the mobile subscriber data and also said subscriber-specific access parameter.” Applicant strenuously disagrees.

Paragraph [0050] of Forslow states - “[w]hen a mobile station attached to the GPRS network, the mobile station’s subscription record is retrieved from the HLR 42.” Paragraph [0075] of Forslow states - “[t]he DAU 102 determines to which specific GGSN to establish the L2TP tunnel using the external entity telephone number and subscription information retrieved from the HLR such as the mobile’s IMSI.” Paragraph [0099] of Forslow states - “[t]he direct access unit 112 analyzes the B telephone number of the called party, and selects an L2TP endpoint based on that B number and HLR subscription data, i.e., the appropriate GGSN for connecting the call to B.”

None of these citations disclose that Forslow’s HLR sends mobile subscriber data and also the subscriber-specific access parameter in response to a message for requesting the mobile subscriber data. These citations simply state that subscriber information (e.g., mobile station IMSI) is retrieved from the HLR. Also, to the extent that Forslow discloses any access considerations, they are based on the mobile station’s IMSI or telephone number of the called party, which at best can be construed as address information. Thus, Forslow clearly fails to disclose that in response to a message for requesting the mobile subscriber data, the home location register sends the mobile subscriber data and also said subscriber-specific access parameter. Furthermore, as mentioned above, since Forslow fails to disclose that the HLR maintains the claimed subscriber-specific access parameter, it cannot disclose that the HLR sends the claimed subscriber-specific access parameter.

Furthermore, the Examiner erroneously relies on paragraph [0083] of Forslow to disclose the feature of: “the network element that requested the mobile subscriber data is operable to use said subscriber-specific access parameter for restricting the access of the mobile subscriber only to the first network or to the second network.”

Paragraph [0083] of Forslow discloses that GSM defines three different classes of mobiles: Class A, Class B, and Class C. However, there is no mention of the claimed subscriber-specific parameter being used by a network element that requested the mobile subscriber data for restricting access of the mobile subscriber only to the first or to the second network.

To summarize, the Examiner alleges that Forslow teaches access parameters, but admits that Forslow fails to teach an access parameter that is independent of the address information.

Applicants submit that Forslow clearly fails to disclose the claimed subscriber-specific access parameter which is maintained in the home location register and which indicates, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network.

2. Amin

According to its Abstract, Amin is purportedly directed to a roaming authorization system that permits a wireless carrier or a subscriber to set a profile that identifies a chosen time window within which the subscriber's wireless calls that are originated from one or more selected roaming areas are not allowed to be completed, while calls that are initiated either from authorized roaming areas or outside the chosen time window are allowed to be completed. The roaming restriction system allows a wireless carrier to either suspend or grant roaming privileges for a given subscriber within one or more location areas, and for a particular time window.

The Examiner asserts that Amin at FIGS. 2, 4 and paragraphs [0025] – [0028] teaches an access parameter (roaming restriction per MSC) which is independent of address information.

It is clear from a reading of both Forslow and Amin that neither reference deals with granting access to either or both of a first and second network by use of "a subscriber-specific access parameter which indicates, independently of the address information, whether the mobile subscriber has access rights to the first network and/or the second network of the different type."

The networks of Amin are both of the same type, as Amin merely deals with conventional roaming, while Forslow appears to deal with access to packet-switched and circuit-switched networks, without the key parameter developed and claimed by Applicants.

Thus, for at least these reasons, Applicant submits that Forslow and Amin fail to disclose the claimed combination of elements recited by each of independent claims 1, 2, 8, and 15.

Accordingly, since the applied art does not teach or suggest all the claimed limitations, reconsideration and allowance of independent claims 1, 2, 8, and 15 are respectfully requested. In addition, dependent claims 3, 6, 7, 9, 11, 13, and 16-17 variously and ultimately depend from these allowable independent claims, and are submitted as being patentable at least on that basis, without further recourse to the patentable features recited therein.

III. New Claims

New claims 18-21 have been drafted to avoid the cited art, and to further define that which Applicants are entitled to claim.

Claim 18 is similar in scope to claim 1, but is directed to paging (support in FIG. 4, and the related description in the application); claim 19 is similar in scope to claim 2, but is directed to paging (support in FIG. 4, and the related description in the application); claim 20 is similar in scope to claim 8, but is directed to restoration of the mobile subscriber data (support in FIG. 4, and the related description in the application); and dependent claim 21 finds support at least at p. 7, lines 13-21 of the present specification.

Consideration and allowance of these new claims 18-21 are respectfully requested.

IV. Conclusion

All rejections having been addressed, Applicant submits that each of pending claims 1-4, 6-9, 11, 13 and 15-21 in the present application is in immediate condition for allowance. An early indication of the same would be appreciated.

In the event the Examiner believes that an interview would be helpful in resolving any outstanding issues in this case, the Undersigned Attorney is available at the telephone number indicated below.

For any fees that are due during the pendency of this application, including fees for extensions of time, please charge Deposit Account Number 03-3975 from which the Undersigned Attorney is authorized to draw. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully submitted,

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Petition for 3-Month Extension of Time